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DEC 04 2003

DEQ  
Planning Division

Ref: SERP-EP

Mr. Art Compton, Director  
Planning, Prevention and Assistance Division  
Department of Environmental Quality  
P.O. Box 200901  
Helena, MT 59620-0901

NOV 26 2003

Re: TMDL Approvals  
Teton River TMDL Planning Area

Dear Mr. Compton:

We have completed our review of the total maximum daily loads (TMDLs) as submitted by your office for the Teton TMDL Planning Area. The TMDLs are included in the document entitled Water Quality Management Plan & TMDLs for the Teton River Watershed (Montana Department of Environmental Quality) transmitted to us for review and approval in correspondence dated September 17, 2003 and signed by you. In accordance with the Clean Water Act (33 U.S.C. 1251 *et. seq.*), with stated conditions specified below, we approve all aspects of the TMDLs as developed for the Teton River TMDL Planning Area. Enclosure 1 to this letter provides a summary of the elements of the TMDLs and Enclosure 2 provides details of our review of the TMDLs.

Based on our review, and contingent upon the stipulation provided under item 3, Water Quality Targets in Enclosure 2, we feel the separate TMDL elements listed in Enclosure 2 adequately address the pollutants of concern, taking into consideration seasonal variation and a margin of safety. In approving these TMDLs, EPA affirms that the TMDLs have been established at a level necessary to attain and maintain the applicable water quality standards and has the necessary components of an approvable TMDL.

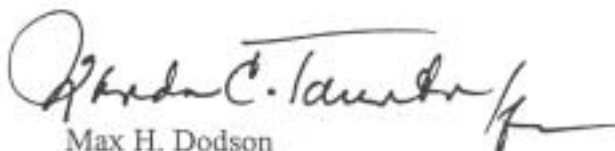
EPA has been in contact with the United States Fish and Wildlife Service (FWS) regarding whether and, if so, how EPA's approval of the Teton River TMDLs may affect the continued existence of any endangered or threatened species listed under the Endangered Species Act (ESA) or the designated critical habitat of any such species. EPA has not determined that today's approval may have such an effect. Therefore, consistent with the terms of a consent decree in the lawsuit of Friends of the Wild Swan, et al., v. U.S. Environmental Protection Agency, et al., Civil Action No. CV99-87-M-LBE, United States District Court for the District of Montana, Missoula Division, EPA has decided to approve these TMDLs contingent upon the outcome of consultation with the FWS.



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Thank you for your submittal. If you have any questions concerning this approval, feel free to contact Ron Steg of my staff at (406) 457-5024.

Sincerely,

A handwritten signature in dark ink, appearing to read "Max H. Dodson", with a stylized flourish at the end.

Max H. Dodson  
Assistant Regional Administrator  
Ecosystems Protection and Remediation

Enclosures

cc:

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## ENCLOSURE 1

**TMDL APPROVAL SUMMARY**  
**TETON RIVER TMDL PLANNING AREA**

Pollutant: Water body	Monitoring Location	Total Daily Maximum Load, Reduction Target, or Surrogate Measure
<b>TDS / SC:</b> Priest Butte Lakes	- In-lake  - Discharge at Hwy 221	34% reduction in-lake SC concentrations  No reduction in May to Sept. <u>average</u> SC 23% reduction in <u>maximum</u> SC
<b>TDS / SC:</b> Teton River	- USGS Loma gage	8% reduction in May to Sept. <u>average</u> SC 14% reduction in <u>maximum</u> SC
<b>Selenium</b> Priest Butte Lakes	- Yeager Seep	0.157 lbs/day to Priest Butte Lakes
<b>Sediment</b> Teton River	- Deep Cr. to Muddy Cr. - Muddy Cr. to mouth	80% of total stream length exhibiting stabile channel geometry, riparian vegetative communities, and minimum stream flows. Refer to Section 4.3.2
<b>Sediment</b> Willow Creek	- Headwaters to Deep Cr.	80% of total stream length exhibiting stabile channel geometry, riparian vegetative communities, and minimum stream flows. Refer to Section 4.3.2
<b>Sediment</b> Deep Creek	- Willow Cr. to mouth	80% of total stream length exhibiting stabile channel geometry, riparian vegetative communities, and minimum stream flows. Refer to Section 4.3.2
<b>Sediment</b> Teton Spring Cr.	- Headwaters to Choteau - Choteau to mouth	80% of total stream length exhibiting stabile channel geometry, riparian vegetative communities, and minimum stream flows. Refer to Section 4.3.2
<b>Thermal Modification</b> Teton River	- Deep Cr. to Muddy Cr.	80% of total stream length exhibiting stabile channel geometry, riparian vegetative communities, and minimum stream flows. Refer to Section 4.4.2
<b>Thermal Modification</b> Teton Spring Cr.	- Headwaters to Choteau	80% of total stream length exhibiting stabile channel geometry, riparian vegetative communities, and minimum stream flows. Refer to Section 4.4.2
<b>Nutrients</b> Deep Creek	- Willow Cr. to mouth	<b>TP</b> 23% reduction <b>TN</b> 57% reduction <b>Chl a</b> 16% reduction
<b>Nutrients</b> Teton Spring Cr.	- In Choteau  - Near mouth	<b>TP</b> No reduction required <b>TN</b> No reduction required <b>Chl a</b> 168% reduction (May – June)  <b>TP</b> No reduction required <b>TN</b> 25% reduction <b>Chl a</b> 4% reduction (May – June)

## ENCLOSURE 2

### TMDL REVIEW FORM EPA Region VIII Montana Office

Document Name:	Water Quality Management Plan & TMDLs for the Teton River Watershed
Submitted by:	MTDEQ
Date Received:	September 22, 2003
Review Date:	October 8, 2003
Reviewer:	Ron Steg
Formal or Informal Review?	Formal

This document provides a standard format for the EPA Montana Office to provide comments to the Montana Department of Environmental Quality on TMDL documents provided to the EPA for either official formal, or informal review. All TMDL documents are measured against the following 12 review criteria:

1. Water Quality Impairment Status
2. Water Quality Standards
3. Water Quality Targets
4. Significant Sources
5. Total Maximum Daily Load
6. Allocation
7. Margin of Safety and Seasonality
8. Monitoring Strategy
9. Restoration Strategy
10. Public Participation
11. Endangered Species Act Compliance
12. Technical Analysis

Each of the 12 review criteria are described below to provide the rationale for the review, followed by EPA's comments. This review is intended to ensure compliance with the Clean Water Act and also to ensure that the reviewed documents are technically sound and the conclusions are technically defensible.

## 1. Water Quality Impairment Status

### Criterion Description – Water Quality Impairment Status

*TMDL documents must include a description of the listed water quality impairments. While the 303(d) list identifies probable causes and sources of water quality impairments, the information contained in the 303(d) list is generally not sufficiently detailed to provide the reader with an adequate understanding of the impairments. TMDL documents should include a thorough description/summary of all available water quality data such that the water quality impairments are clearly defined and linked to the impaired beneficial uses and/or appropriate water quality standards.*

- ☐ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☒ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

Waters in the Teton TPA are listed for impairments associated with salinity/TDS/chlorides, selenium, sediment (siltation and suspended solids), thermal modification, organic enrichment/DO and nutrients. The following review comments and summary information is presented on a pollutant-by-pollutant basis.

#### Salinity/TDS/Chlorides

Priest Butte Lakes, Lower Teton (Muddy Creek to mouth), and Blackleaf Creek (NF Muddy Creek) were listed for salinity/TDS/chlorides on the 1996-303(d) list. Sources of salinity/TDS/chlorides in Blackleaf Creek were found to be natural based on work conducted by DEQ in 2002. The Middle Teton (Deep Creek to Muddy Creek) was listed for salinity/TDS/chlorides on the 2002-303(d) list. For the purposes of this document, Priest Butte Lakes, and the Middle and Lower Teton were considered impaired for salinity/TDS/chlorides.

#### Selenium

Priest Butte Lakes is the only water body in the Teton TPA listed as impaired as a result of selenium. The impairment status for Selenium is based on exceedances of Montana's chronic criteria of 5 ug/l (300% in excess of the chronic criteria) and elevated levels in fish and waterfowl. Recent, water chemistry data for selenium is limited. As a result, a plan for the collection of additional data in the future is presented in Section 6.2.2.

#### Sediment (siltation/suspended solids)

The following waters are listed for sediment related parameters on the 1996 303(d) list: the middle and lower Teton River, Clark Fork of Muddy Creek, Deep Creek, Willow Creek, Blackleaf Creek, and Bynum and Eureka Reservoirs.

Based on further DEQ review in support of the development of the 2002 303(d) list, it was concluded that Blackleaf Creek is no longer impaired as a result of sediment related causes. The lower portion of Blackleaf Creek, however, is listed for "bank erosion" on the 2002 303(d) list. For this reason, Blackleaf Creek is addressed in the remainder of the document along with the other sediment impaired water bodies. Further, Bynum and Eureka Reservoirs were found to be fully supporting their beneficial uses in the 2002 303(d) list. As a result, no TMDLs have been submitted for these reservoirs.

In general, it appears that sufficient data is available to make impairment determinations for the waters in the TPA, however, sufficient data is not available to fully understand links between causes and sources, set site-specific targets, TMDLs, and allocations. However, these uncertainties are acknowledged and a plan to collect supplemental data is provided in Section 6.0.

It should be noted that both the 1996 and 2002 303(d) listing decisions for Bynum and Eureka Reservoirs were based on limited data. Additional data collection to develop a more thorough understanding of the water quality characteristics of these two reservoirs is recommended.

#### Thermal Modification

The Teton River and Teton Spring Creek both appear on either the 1996 or 2002 303(d) lists for impairments associated with thermal modification. The conclusion that Teton Spring Creek is thermally impaired is based on limited in stream temperature data. However, this data gap is adequately addressed in Section 6.0 of the document.

#### Organic Enrichment/DO and Nutrients

The Priest Butte Lakes were listed for organic enrichment/dissolved oxygen, which implies a potential nutrient impairment. DEQ determined that insufficient data is available to verify the 1996 listing for organic enrichment/dissolved oxygen. A plan to collect additional dissolved oxygen data in the Priest Butte Lakes is outlined in Section 6.0.

Deep Creek and Teton Spring Creek were both listed for nutrient impairments on the 2002 303(d) list. While sufficient data to determine that these waters appear to be nutrient impaired exists, sufficient data is not available to fully understand links between causes and sources, set site-specific targets, TMDLs, and allocations. However, these uncertainties are acknowledged and a plan to collect supplemental data is provided in Section 6.0.

#### General Comment

It should be acknowledged that, in many cases, baseline data for many of the listed pollutants is limited and additional data are needed to develop a comprehensive understanding of the water quality impairments, sources, and linkages between the two. In general, a plan is presented in Section 6.0 to collect supplemental data in the future to address these uncertainties.

One notable exception involves hydrology and irrigation. The hydrology of the Teton Basin is extremely complex due to a long history of irrigation that likely affects both surface and groundwater flows. Clearly, flow is one of the primary sources of impairment in the Teton Basin and drives the water quality potential of many of the waters in the Teton Basin, particularly in regards to sediment and temperature.

Therefore, it may be appropriate to conduct a comprehensive hydrologic investigation to: 1) compile and evaluate all available flow data, and studies that may have been conducted regarding irrigation; 2) identify and map all irrigation points of diversion and returns; 3) implement a comprehensive monitoring study to estimate current flows from all sources, including groundwater, and 4) develop strategies for improving irrigation efficiencies and in-stream flows.

## 2. Water Quality Standards

### Criterion Description – Water Quality Standards

*The TMDL document must include a description of all applicable water quality standards for all affected jurisdictions. TMDLs result in maintaining and attaining water quality standards. Water quality standards are the basis from which TMDL's are established and the TMDL targets are derived, including the numeric, narrative, use classification, and antidegradation components of the standards.*

- ☒ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

The applicable standards are discussed in Section 3.2. It is noted that the current beneficial use classification for Priest Butte Lakes may not be appropriate (i.e., given the "natural" condition of the lakes, it may not be possible to attain full support of all designated beneficial uses) and a Use Attainability Analysis is scheduled to address this issue in 2004.



### 3. Water Quality Targets

#### Criterion Description – Water Quality Targets

*Quantified targets or endpoints must be provided to address each listed pollutant/water body combination. Target values must represent achievement of applicable water quality standards and support of associated beneficial uses. For pollutants with numeric water quality standards, the numeric criteria are generally used as the TMDL target. For pollutants with narrative standards, the narrative standard must be translated into a measurable value. At a minimum, one target is required for each pollutant/water body combination. It is generally desirable, however, to include several targets that represent achievement of the standard and support of beneficial uses (e.g., for a sediment impairment issue it may be appropriate to include targets representing water column sediment such as TSS, embeddeness, stream morphology, up-slope conditions, and a measure of biota).*

- ☐ Satisfies Criterion
- ☒ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

#### Salinity/TDS/chlorides

The salinity target for the Priest Butte Lakes results in an improvement of water quality and it is based primarily on the protection of waterfowl (the primary, existing beneficial use). Priest Butte Lakes are currently classified as B-1 which also includes cold-water aquatic life, agriculture, and drinking water uses. Although protective of waterfowl, the salinity target is not likely to be protective of cold water aquatic life. However, it is thought that Priest Butte Lakes may be inappropriately classified for cold water aquatic life. Section 3.2.1 suggests that a Use Attainability Analysis may be conducted to reevaluate the Priest Butte Lakes classification. Since the proposed target for the Priest Butte Lakes does not protect all of its designated beneficial uses, EPA's approval of this target is contingent upon completion of a Use Attainability Analysis (UAA) or official consideration of site-specific standards and subsequent EPA approval of any change in use and/or numeric standards. The target, then, should be reviewed and modified, if necessary, to reflect any change in use or numeric standards applicable to Priest Butte Lakes as approved by EPA. Based on a letter dated July 11, 2003 from Art Compton, DEQ Division Director, the Department plans to consider reclassification of the Priest Butte Lakes during their tri-annual review of water quality standards and classifications in 2004.

Targets for the other waters listed for salinity/TDS/chlorides are based on protection of all beneficial uses. The target for the discharge from Priest Butte Lakes considers the diluting effect of discharge into the Teton River. The compliance point for this target is located approximately two-miles downstream of the actual discharge point and is in the Teton River (i.e., Hwy 221 bridge). The targets consider critical time periods (i.e., irrigation season and non-irrigation season) and include an irrigation seasonal average target (i.e., a not-to-exceed value averaged over the period May 1 through September 30), and an instantaneous maximum value that applies all year. These targets appear to be adequately protective of all designated beneficial uses.



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### Selenium

The target for selenium is Montana's chronic criterion of 5 ug/l. However, it has been presented as a "not to exceed" value which is much more restrictive than the chronic criteria.

### Sediment

The targets for sediment focus on attainment of 1) establishment of critical in stream flow regimes, 2) the establishment or enhancement of a riparian zone vegetation community, and 3) stream morphology. Developing a comprehensive understanding of the current flow regimes and best potential achievable flow regimes will be critically important to attaining these targets (refer to "general comment" under 1 above).

### Thermal Modifications

Temperature targets are based on surrogates including: (1) establishment of critical in stream flows, (2) establishment and/or enhancement of shade, and (3) stream channel morphology. These targets appear to be appropriate. As with sediment, developing a comprehensive understanding of the current flow regimes and best potential achievable flow regimes will be critically important to attaining these targets (refer to "general comment" under 1 above).

### Nutrients

Targets are proposed for total phosphorous, total nitrogen, and benthic chlorophyll a. These targets are based on regional criteria and/or existing conditions. Limited data is available for both of the listed water bodies, so considerable uncertainty exists around these targets. An adaptive management strategy to address this uncertainty is presented in Section 6.0.

#### 4. Significant Sources

##### Criterion Description – Significant Sources

*TMDLs must consider all significant sources of the stressor of concern. All sources or causes of the stressor must be identified or accounted for in some manner. The detail provided in the source assessment step drives the rigor of the allocation step. In other words, it is only possible to specifically allocate quantifiable loads or load reductions to each significant source when the relative load contribution from each source has been estimated. Ideally, therefore, the pollutant load from each significant source should be quantified. This can be accomplished using site-specific monitoring data, modeling, or application of other assessment techniques. If insufficient time or resources are available to accomplish this step, a phased/adaptive management approach can be employed so long as the approach is clearly defined in the document.*

- ☒ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

##### Salinity/TDS/chlorides

Primary sources appear to have been identified.

##### Selenium

Yeager Seep has been identified as a significant source of selenium loading to the Priest Butte Lakes and the load has been quantified. Although loads have not been quantified from other potential sources, it is anticipated that other sources exist. A monitoring strategy to collect additional data and characterize other potential sources is presented in Section 6.0.

##### Sediment

Nonpoint source sediment sources include highway and road related structures, instream diversion structures, irrigation practices, unmanaged riparian grazing, crop production, and natural sources including impacts from historic high flow events. Given the paucity of available data, neither the loads from each of these sources nor the relative importance of each of these sources have been estimated. Detailed plans to fill these data gaps are presented in Section 6.0 and are acceptable to EPA.

One permitted point source (the City of Choteau Wastewater Treatment Plant) has been identified, but the current sediment load is not significant from this source.

## Thermal Modification

Detailed evaluation of all potentially significant sources has not been completed at this time. Temperature is assumed to have many of the same sources as sediment and a detailed plan to fill data gaps regarding potential sources for increased temperature is proposed in Section 6.0.

## Nutrients

Potential sources of nutrient enrichment have been identified as: agriculture, grazing, irrigation, stormwater runoff, septic systems, and municipal residential lawn care. Given the paucity of available data, neither the loads from each of these sources nor the relative importance of each of these sources have been estimated. Detailed plans to fill these data gaps are presented in Section 6.0.

## 5. TMDL

### Criterion Description – Total Maximum Daily Load

*TMDLs include a quantified pollutant reduction target. According to EPA reg (see 40 C.F.R. 130.2(i)) TMDLs can be expressed as mass per unit of time, toxicity, % load reduction, or other measure. TMDLs must address, either singly or in combination, each listed pollutant/water body combination.*

- ☒ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

## Salinity

The proposed TMDL for the Priest Butte Lakes is a 34% reduction in TDS loading.

The Teton River is currently meeting the irrigation season target. Therefore, no TMDL or load reduction is necessary. However, the instantaneous maximum target has been exceeded in the Middle and Lower Teton. Percent load reductions have been proposed as TMDLs to address the exceedences of the instantaneous maximum target (23% and 14% for the Middle and Lower Teton River, respectively). These load reduction targets, or TMDLs, appear to be based on the hypothesis that there is a linear relationship between peak TDS concentrations and load. In other words, future observed peak TDS concentrations will be reduced by reducing the overall TDS load. This hypothesis will have to be tested through implementation of the monitoring strategy outlined in Section 6.0. If, after implementation of this plan, peak TDS concentrations continue to exceed the instantaneous maximum target, the TMDL may need to be revised.

### Selenium

The selenium TMDL focuses on load reductions from the Yeager Seep at this time. An adaptive management strategy is proposed to allow for consideration of additional sources in the future, if necessary.

### Sediment

The TMDL for sediment is presented as the sum of the wasteload allocation (i.e., from the single point source) and the load allocation from nonpoint sources. The wasteload allocation is the amount currently allocated by the City of Choteau's MPDES permit (250 lbs/day). The load allocation is performance based.

### Thermal Modification

The TMDL for temperature is the sum of all of the proposed performance-based allocations.

### Nutrients

The TMDLs are presented as both a % load reduction (based on the results from one sample event) and the sum of performance based allocations. The % load reductions will likely need to be modified in the future based on the results of future sampling and analysis proposed in Section 6.0.

## 6. Allocation

### Criterion Description – Allocation

*TMDLs apportion responsibility for taking actions or allocate the available assimilative capacity among the various point, nonpoint, and natural pollutant sources. Allocations may be expressed in a variety of ways such as by individual discharger, by tributary watershed, by source or land use category, by land parcel, or other appropriate scale or dividing of responsibility. A performance based allocation approach, where a detailed strategy is articulated for the application of BMPs, may also be appropriate for non point sources.*

*In cases where there is substantial uncertainty regarding the linkage between the proposed allocations and achievement of water quality standards, it may be necessary to employ a phased or adaptive management approach (e.g., establish a monitoring plan to determine if the proposed allocations are, in fact, leading to the desired water quality improvements).*

*Allocating load reductions to specific sources is generally the most contentious and politically sensitive component of the TMDL process. It is also the step in the process where management direction is provided to actually achieve the desired load reductions. In many ways, it is a prioritization of restoration activities that need to occur to restore water quality. For these reasons, every effort should be made to be as detailed as possible and also, to base all conclusions on the best available scientific principles.*

- ☐ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☒ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

### Salinity

The load allocations for the Priest Butte Lakes have been assigned to two primary sources (Freezeout Lake and Yeager Seep) for which quantitative source loadings have been estimated. The entire 34% reduction is allocated to these two sources. An adaptive management strategy is proposed for the consideration of other sources for which quantitative source loading information is not yet available. Based on a review of the salinity related data in Section 3.3.1, it appears that the TMDL and allocations for the Priest Butte Lakes will address any salinity problems in the Teton River. However, to be conservative, this document proposes an additional qualitative allocation to agricultural lands to address loading specifically to the Teton River.

### Selenium

The selenium allocation focuses on load reductions from Yeager Seep at this time. An adaptive management strategy is proposed to allow for consideration of allocations to additional sources in the future, if necessary.

### Sediment

The sediment allocation focuses on nonpoint sources and is performance based.

### Thermal Modification

A performance-based allocation is proposed.

### Nutrients

A performance-based allocation is proposed.

## 7. Margin of Safety and Seasonality

### Criterion Description – Margin of Safety/Seasonality

*A margin of safety (MOS) is a required component of the TMDL that accounts for the uncertainty about the relationship between the pollutant loads and the quality of the receiving water body (303(d)(1)(c)). The MOS can be implicitly expressed by incorporating a margin of safety into conservative assumptions used to develop the TMDL. In other cases, the MOS can be built in as a separate component of the TMDL (in this case, quantitatively, a  $TMDL = WLA + LA + MOS$ ). In all cases, specific documentation describing the rationale for the MOS is required.*

*Seasonal considerations, such as critical flow periods (high flow, low flow), also need to be considered when establishing TMDLs, targets, and allocations.*

- ☒ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

### Salinity

A margin of safety is employed in the targets by including both seasonal average and instantaneous maximum values. The seasonal average values are intended to protect agricultural beneficial uses over the long term, while the instantaneous value is intended to protect aquatic life. The instantaneous maximum target also includes a 6.6% margin of safety (100 uS/cm SC). The qualitative allocation to



agricultural sources for the Teton River Watershed may also be more than that which is required to reduce TDS/SC levels in the Teton River below the target values. This provides a margin of safety if the TMDLs and allocations for Priest Butte Lake fall short.

#### Selenium

The margin of safety for the selenium appears to be adequately protective.

#### Sediment

The monitoring and adaptive management strategy outlined in Section 6.0 provides an adequate margin of safety.

#### Thermal Modification

Including allocations for all major tributaries, even those that do not currently appear to be impaired, provides a margin of safety.

#### Nutrients

The margin of safety is provided by the monitoring and adaptive management strategy outlined in Section 6.0.

### **8. Monitoring Strategy**

☐ Satisfies Criterion

#### **Criterion Description – Monitoring Strategy**

*Many TMDL's are likely to have significant uncertainty associated with selection of appropriate numeric targets and estimates of source loadings and assimilative capacity. In these cases, a phased TMDL approach may be necessary. For Phased TMDLs, it is EPA's expectation that a monitoring plan will be included as a component of the TMDL documents to articulate the means by which the TMDL will be evaluated in the field, and to provide supplemental data in the future to address any uncertainties that may exist when the document is prepared.*

- ☒ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

#### Salinity

The monitoring and adaptive management strategy for salinity includes further monitoring of the appropriate lakes and streams as well as key groundwater areas within the watershed. The State has planned to re-evaluate the current use classification and numeric salinity targets applicable to Priest Butte

Lakes in 2004. A Use Attainability Analysis will be performed and/or site specific criteria developed to address the issue of salinity levels in Priest Butte Lakes.

#### Selenium

The monitoring and adaptive management strategy for selenium outlined in Section 6.0 appears to be adequate.

#### Sediment

The monitoring and adaptive management strategy for sediment outlined in Section 6.0 appears to be very thorough and well conceived. The following two additions to the monitoring strategy should be considered: (1) collection of TSS or SSC data above and below the Choteau Wastewater Treatment Plant; and (2) conducting the comprehensive hydrologic investigation described above under "Impairment Status".

#### Thermal Modification

The monitoring and adaptive management strategy for temperature outlined in Section 6.0 appears to be very thorough and well conceived. As with sediment, it may be appropriate to conduct the comprehensive hydrologic investigation described above under "Impairment Status".

#### Nutrients

The monitoring and adaptive management strategy for nutrients outlined in Section 6.0 appears to be adequate. However, consideration should be given to enhancing the investigation of the Priest Butte Lakes to include the collection of temperature/dissolved oxygen profiles as well as nutrient concentration data.

### 9. Restoration Strategy

#### **Criterion Description – Restoration Strategy**

*At a minimum, sufficient information should be provided in the TMDL document to demonstrate that if the TMDL were implemented, water quality standards would be attained or maintained. Adding additional detail regarding the proposed approach for the restoration of water quality is not currently a regulatory requirement, but is considered a value added component of a TMDL document.*

- ☐ Satisfies Criterion
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☒ Not a required element in this case. Comments or questions provided for informational purposes.

A phased approach is proposed for implementation of this Water Quality Management Plan. This document constitutes Phase I, wherein the required elements of the TMDL are based on the best available data. A monitoring and adaptive management strategy is proposed in Section 6.0. Implementation of the proposed strategy in Section 6.0, and application of an adaptive management approach, would likely ultimately result in attaining and maintaining water quality standards. The success of this plan is dependant upon adaptive management and implementation of Section 6.0.

## 10. Public Participation

### Criterion Description – Public Participation

*The fundamental requirement for public participation is that all stakeholders have an opportunity to be part of the process. Public participation should fit the needs of the particular TMDL.*

- ☒ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

A 30-day public comment period was provided from February 27, 2003 through March 27, 2003. DEQ's responses to public comment are presented in Appendix E.

## 11. Technical Analysis

### Criterion Description – Technical Analysis

*TMDLs must be supported by an appropriate level of technical analysis. It applies to all of the components of a TMDL document. It is vitally important that the technical basis for all conclusions be articulated in a manner that is easily understandable and readily apparent to the reader. Of particular importance, the cause and effect relationship between the pollutant and impairment and between the selected targets, sources, TMDLs, and allocations needs to be supported by an appropriate level of technical analysis.*

- ☒ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☐ Not a required element in this case. Comments or questions provided for informational purposes.

Baseline data for many of the listed pollutants is limited and additional data are needed to develop a comprehensive understanding of the water quality impairments, sources, and linkages between the two. In general, this is acknowledged in the document and a plan is presented in Section 6.0 to collect supplemental data in the future to address these uncertainties.

**Criterion Description – Endangered Species Act Compliance**

*EPA's approval of a TMDL may constitute an action subject to the provisions of Section 7 of the Endangered Species Act ("ESA"). EPA will consult, as appropriate, with the US Fish and Wildlife Service (USFWS) to determine if there is an effect on listed endangered and threatened species pertaining to EPA's approval of the TMDL. The responsibility to consult with the USFWS lies with EPA and is not a requirement under the Clean Water Act for approving TMDLs. States are encouraged, however, to participate with FWS and EPA in the consultation process and, most importantly, to document in its TMDLs the potential effects (adverse or beneficial) the TMDL may have on listed as well as candidate and proposed species under the ESA.*

- ☐ Satisfies Criterion
- ☐ Satisfies Criterion with stipulations provided below that must be addressed.
- ☐ Satisfies Criterion. Questions or comments provided below should be considered.
- ☐ Partially satisfies criterion. Questions or comments provided below need to be addressed.
- ☐ Criterion not satisfied. Questions or comments provided below need to be addressed.
- ☒ Not a required element in this case. Comments or questions provided for informational purposes.

EPA has been in contact with the United States Fish and Wildlife Service (FWS) regarding whether and, if so, how EPA's approval of the Teton River TMDLs may affect the continued existence of any endangered or threatened species listed under the Endangered Species Act (ESA) or the designated critical habitat of any such species. EPA has not determined that today's approval may have such an effect. Therefore, consistent with the terms of a consent decree in the lawsuit of Friends of the Wild Swan, et al., v. U.S. Environmental Protection Agency, et al., Civil Action No. CV99-87-M-LBE, United States District Court for the District of Montana, Missoula Division, EPA has decided to approve these TMDLs contingent upon the outcome of consultation with the FWS.